

In the Specification

Please replace paragraph [0012] with the following replacement paragraph:

[0012] In order to solve the above problems, an exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 1~~ of the present invention includes: an administration means for administering an olfactory mucosa stimulating compound toward an olfactory mucosa of a test animal; a measuring electrode portion implanted in an olfactory bulb of the test animal for measuring an electrical signal generated in the olfactory bulb; a processing means for analyzing a correlation between an electrical signal measured by the measuring electrode portion when the olfactory mucosa stimulating compound is administered to the olfactory mucosa of the test animal by the administration means and a physiological response induced in the test animal.

Please replace paragraph [0013] with the following replacement paragraph:

[0013] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 2~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in claim 1~~, the processing means directly obtains data concerning the physiological response from the test animal, so as to analyze the correlation between the physiological response and the electrical signal obtained by the measuring electrode portion.

Please replace paragraph [0014] with the following replacement paragraph:

[0014] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 3~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in claim 1~~, the processing means previously stores data concerning an electrical signal in the olfactory bulb which induces a physiological response in the test animal, and analyzes based on the data the correlation between a physiological response and an electrical signal obtained by the measuring electrode portion.

Please replace paragraph [0015] with the following replacement paragraph:

[0015] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 4~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in any of claims 1-3~~, the administration means includes a box for containing the olfactory mucosa stimulating compound, and a nozzle for spraying the olfactory mucosa stimulating compound contained in the box in the vicinity of the olfactory mucosa of the test animal.

Please replace paragraph [0016] with the following replacement paragraph:

[0016] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 5~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in any of claims 1-4~~, the measuring electrode portion has at least one micro electrode for detecting an electrical signal from a nerve cell of the olfactory bulb.

Please replace paragraph [0017] with the following replacement paragraph:

[0017] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 6~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in claim 5~~, the measuring electrode portion has a plurality of micro electrodes, the micro electrodes being arranged such that an electrical signal pattern generated in the olfactory bulb by administration of the olfactory mucosa stimulating compound to the olfactory mucosa of the test animal is obtained at a plurality of points.

Please replace paragraph [0018] with the following replacement paragraph:

[0018] An exemplary olfactory mucosa stimulating compound screening apparatus ~~recited in claim 7~~ is characterized in that, in the olfactory mucosa stimulating compound screening apparatus above ~~recited in claim 5 or 6~~, an electrical signal which induces a physiological response in the test animal is supplied to each of the micro electrodes.

Please replace paragraph [0019] with the following replacement paragraph:

[0019] An exemplary olfactory mucosa stimulating compound screening method ~~recited in claim 8~~ includes steps of: administering an olfactory mucosa stimulating compound to an olfactory mucosa of a test animal; measuring an electrical signal generated in the olfactory bulb of the test animal when the olfactory mucosa stimulating compound is administered to the olfactory mucosa of the test animal; and analyzing a correlation between the measured electrical signal and a physiological response induced in the test animal.

Please replace paragraph [0020] with the following replacement paragraph:

[0020] An exemplary olfactory mucosa stimulating compound screening method ~~recited in claim 9~~ presents a correlation between an electrical signal measured by a measuring electrode portion and a physiological response induced in a test animal in the olfactory mucosa stimulating compound screening method above ~~recited in claim 8~~.

Please replace paragraph [0021] with the following replacement paragraph:

[0021] A An exemplary treatment apparatus ~~recited in claim 10~~ includes: a measuring electrode portion implanted in an olfactory bulb of an organism; and a means for supplying a stimulation pattern in the olfactory bulb, which induces a physiological response in the organism, to the measuring electrode portion in the form of an electrical signal pattern.

Please replace paragraph [0022] with the following replacement paragraph:

[0022] A An exemplary measuring electrode portion ~~recited in claim 11~~ is implanted in an olfactory bulb of a test animal for measuring an electrical signal generated in an olfactory bulb or supplying an electrical signal to the olfactory bulb, the measuring electrode portion comprising a plurality of micro electrodes, each of which detects an electrical signal from a nerve cell of the olfactory bulb, wherein the micro electrodes are arranged based on an electrical signal pattern which is generated in the olfactory bulb as a result of administration of an olfactory mucosa stimulating compound to an olfactory mucosa of the test animal.

Please replace paragraph [0023] with the following replacement paragraph:

[0023] A An exemplary measuring electrode portion ~~recited in claim 12~~ is characterized in that, in the measuring electrode portion above of claim 11, each of the micro electrodes has an area of $1 \mu\text{m}^2$ to $100,000,000 \mu\text{m}^2$.

Please replace paragraph [0024] with the following replacement paragraph:

[0024] A An exemplary measuring electrode portion ~~recited in claim 13~~ is characterized in that, in the measuring electrode portion above of claim 12, the micro electrodes are arranged in a matrix.

Please replace paragraph [0025] with the following replacement paragraph:

[0025] A An exemplary measuring electrode portion ~~recited in claim 14~~ is characterized in that, in the measuring electrode portion above of claim 13, an interval between adjacent micro electrodes is 10 to $10,000 \mu\text{m}$.

Please replace paragraph [0026] with the following replacement paragraph:

[0026] A An exemplary measuring electrode portion ~~recited in claim 15~~ is characterized in that, in the measuring electrode portion above of claim 11, each of the micro electrodes is placed on a film-shaped substrate.

Please replace paragraph [0027] with the following replacement paragraph:

[0027] A An exemplary measuring electrode portion ~~recited in claim 16~~ is characterized in that, in the measuring electrode portion above of claim 15, each of the micro electrodes has the shape of a ring, and is placed around a periphery of a through-hole formed in the substrate.

Please replace paragraph [0028] with the following replacement paragraph:

[0028] A An exemplary measuring electrode portion ~~recited in claim 17~~ is characterized in that, in the measuring electrode portion above ~~of claim 16~~, the inner diameter of the through-hole formed in the substrate is equal to or smaller than 10,000 μm .

Please replace paragraph [0029] with the following replacement paragraph:

[0029] A An exemplary measuring electrode portion ~~recited in claim 18~~ is characterized in that, in the measuring electrode portion above ~~of claim 11~~, the micro electrodes are provided on a front surface and a back surface at the same positions; each micro electrode provided on one of the surfaces of the substrate detects an electrical signal pattern which induces a physiological response in a test animal; and each micro electrode provided on the other surface of the substrate applies a signal which is the same as or different from the detected signal.

Please replace paragraph [0030] with the following replacement paragraph:

[0030] A An exemplary measuring electrode portion ~~recited in claim 19~~ is characterized in that, in the measuring electrode portion above ~~of claim 15~~, the micro electrodes are formed of any of gold, platinum, ITO, titanium nitride, copper, silver, and tungsten.

Please replace paragraph [0031] with the following replacement paragraph:

[0031] A An exemplary measuring electrode portion ~~recited in claim 20~~ is characterized in that, in the measuring electrode portion above ~~of claim 15~~, the substrate is made of a biomaterial.

Please replace paragraph [0032] with the following replacement paragraph:

[0032] A An exemplary measuring electrode portion ~~recited in claim 21~~ is characterized in that, in the measuring electrode portion above ~~of claim 15~~, the substrate is made of any of polyethylene terephthalate, teflon, silicone rubber, a semiconductor material, and electrically conductive rubber.

Please replace paragraph [0033] with the following replacement paragraph:

[0033] A An exemplary measuring electrode portion ~~recited in claim 22~~ is characterized in that, in the measuring electrode portion above ~~of claim 13~~, the micro electrode is formed at a tip of a needle-shaped conductive lead; a predetermined number of needle-shaped conductive leads are bound together such that the micro electrodes are placed with a predetermined interval, so as to form an electrode column; and a plurality of electrode columns are placed in parallel to each other with a predetermined interval therebetween.

Please replace paragraph [0034] with the following replacement paragraph:

[0034] A An exemplary measuring electrode portion ~~recited in claim 23~~ is characterized in that, in the measuring electrode portion above ~~of claim 21~~, the needle-shaped conductive lead has a diameter of 1 μm to 1,000 μm .

Please replace paragraph [0035] with the following replacement paragraph:

[0035] A An exemplary measuring electrode portion ~~recited in claim 24~~ is characterized in that, in the measuring electrode portion above ~~of claim 22~~, the needle-shaped conductive lead is formed by covering a needle-shaped conductive material with an insulative film except for the micro electrode at the tip thereof.

Please replace paragraph [0036] with the following replacement paragraph:

[0036] A An exemplary measuring electrode portion ~~recited in claim 25~~ is characterized in that, in the measuring electrode portion above ~~of claim 24~~, the conductive material of the needle-shaped conductive lead is any of gold, platinum, ITO, titanium nitride, copper, silver, tungsten, and conductive rubber.

Please replace paragraph [0037] with the following replacement paragraph:

[0037] A An exemplary measuring electrode portion ~~recited in claim 26~~ is characterized in that, in the measuring electrode portion above ~~of claim 24~~, the insulative film that covers the needle-shaped conductive lead is any of polystyrene, acrylic resins, polycarbonate, polyimide.

Please replace paragraph [0038] with the following replacement paragraph:

[0038] A An exemplary measuring electrode portion ~~recited in claim 27~~ is characterized in that, in the measuring electrode portion above ~~of claim 11~~, the micro electrode is covered with a film of a biomaterial.

Please replace paragraph [0039] with the following replacement paragraph:

[0039] A An exemplary measuring electrode portion ~~recited in claim 28~~ is characterized in that, in the measuring electrode portion above ~~of claim 22~~, the tip of the needle-shaped conductive lead is covered with a film of a biomaterial.

Please replace paragraph [0040] with the following replacement paragraph:

[0040] A An exemplary treatment method ~~recited in claim 29~~ includes steps of: administering an olfactory mucosa stimulating compound to an olfactory mucosa of a test animal; measuring an electrical signal generated in an olfactory bulb of the test animal when the olfactory mucosa stimulating compound is administered to the olfactory mucosa of the test animal to obtain an electrical signal pattern; determining a correlation between the electrical signal pattern, and the type and level of a physiological response induced in the test animal by the electrical signal pattern; and supplying an electrical signal pattern, which is sufficient for generating an intended physiological response, to an olfactory bulb of the test animal in the form of a stimulation pattern.

Please replace paragraph [0041] with the following replacement paragraph:

[0041] A An exemplary method as above ~~recited in claim 30~~ is characterized in that the intended physiological response is a decrease in the blood pressure.

Please replace paragraph [0042] with the following replacement paragraph:

[0042] ~~A~~ An exemplary method as above recited in claim 31 is characterized in that the intended physiological response is a decrease in the blood glucose level.

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